

September 10, 2019

BH Medical Products Co., Ltd. Xiaohua Tao President No.90 Shenjiang Villagers' group, Zhangjiacunwei, Xilin Street, Zhonglou District Changzhou, 213024 Cn

Re: K190484

Trade/Device Name: BH Medical Dental Barrier Sleeves and Barrier Film

Regulation Number: 21 CFR 878.4370

Regulation Name: Surgical Drape And Drape Accessories

Regulatory Class: Class II Product Code: PEM

Dated: August 6, 2019 Received: August 12, 2019

#### Dear Xiaohua Tao:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm</a> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

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Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <a href="https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems">https://www.fda.gov/medical-device-problems</a>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</a>) and CDRH Learn (<a href="https://www.fda.gov/training-and-continuing-education/cdrh-learn">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</a>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

For Elizabeth Claverie, M.S.
Assistant Director for THT4B2
Acting Assistant Director for THT4B1
DHT4B: Division of Infection Control
and Plastic Surgery Devices
OHT4: Office of Surgical
and Infection Control Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

# DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

## **Indications for Use**

Form Approved: OMB No. 0910-0120

Expiration Date: 06/30/2020 See PRA Statement below.

510(k) Number (if known) K190484

Device Name

BH Medical Dental Barrier Sleeves and Barrier Film

#### Indications for Use (Describe)

BH Medical Dental Barrier Sleeves and Barrier Film are intended to be used as a disposable barrier for dental instruments and equipment. This device is non-sterile and intended for single patient use only.

Item#	Model	Designed for
#992514	B tray sleeves	Dental instrument tray, 10 1/2"x14"(360x270mm)
#992515	E tray sleeves	Dental instrument tray, 11 1/2"x16"(410x290mm)
#992516	A tray sleeves	Dental instrument tray, 7 1/2"x10 1/2"(270x190mm)
#992446	Headrest Cover	Dental chair headrest, 11"x9 1/2"(250x280mm)
#992447	Headrest Cover	Dental chair headrest, 14"x9 1/2"(250x360mm)
#992513	X-ray head sleeves	X-ray head, universal, 15"x26"(660x380mm)
#992481	Full chair sleeves	Dental chair, universal, 29"x80"(2020x730mm)
#992479	Half chair sleeves	Half dental chair, universal, 27 1/2"x24"(680x600mm)
#992486	Syringe/HVE sleeve without tape	Air/water syringe HVE universal, 2 1/2"x10"(250x60x22mm)
#991372	Digital x-ray sensor sleeve	Digital x-ray sensor, universal, large, 1 5/8"x8"(210x43mm)
#991371	Digital x-ray sensor sleeve	Digital x-ray sensor, universal, large, 1 3/8"x8"(210x36mm)
#992492	handpiece and pen sleeves-High speed	Dental high-speed handpiece universal(200x28mm)
#992493	handpiece and pen sleeves-Lower speed	Dental low-speed handpiece universal(200x38mm)
#992499	light handle sleeves	light handles, universal, T-shape(154x73mm)
#992508	light handle sleeves	light handles, universal, Rectanglar(150x105mm)
#992495	light cure sleeves	Dental curing light, medium,20mm
#992496	light cure sleeves	Dental curing light, large,25mm
#992497	light cure sleeves, curved tip	Dental curing light, medium,(340x53x16mm)
#992498	light cure sleeves, curved tip	Dental curing light, large,(340x84x16mm)
#992582	light cure sleeves, pen style	Dental curing light, pen type,tip:40x27mm,total:250x50mm
#992583	light cure sleeves, pen style	Dental curing light, pen type,,tip:55x26mm,total:250x52mm
#992584	light cure sleeves, pen style	Dental curing light, pen type,tip:40x30mm,total:250x55mm
#991361	Barrier envelopes size 0	Digital x-ray sensor(Kodak 6100 size 0) ,inner :36x23mm
#991362	Barrier envelopes size 1	Digital x-ray sensor(Kodak 6100 size 1) ,inner :42x26mm
#991363	Barrier envelopes size 2	Digital x-ray sensor(Kodak 6100 size 2) ,inner :45x33mm
#991364	Barrier envelopes size 3	Digital x-ray sensor(Kodak 6100 size 3) ,inner:56x30mm
#991365	Barrier envelopes size 4	Digital x-ray sensor(Kodak 6100 size 4) ,inner :80x60mm
#992489	Tubing sleeves roll (2")	Dental unit tubing, 2",(50mm)
#992490	Tubing sleeves roll (4")	Dental unit tubing, 4",(100mm)
#992483	Barrier film white	Surface area that might be touched during procedure
		4"x6",white,10cmx15cmx180m
#992482	Barrier film blue	Surface area that might be touched during procedure
		4"x6",blue,10cmx15cmx180m
#992585	Intraoral Camera Sleeves	Digital intraoral camera sleeves, DMD Telicam,
		228x43x13.5mm
#992586	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Siemens Ceracam/minicam
		Ultra, 228x43x24mm
#992587	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Dentsply Acucap

		Concept, 228x43x16.6mm
#992588	Intraoral Camera Sleeves	*
#992388	miraorai Camera Sieeves	Digital intraoral camera sleeves, Camsight OptumII,
		228x25x17mm
#992589	Intraoral Camera Sleeves	Digital intraoral camera sleeves, RF System SS21, 228x57x22mm
#992590	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Suni Sunic-am,228x48x31mm
#992591	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Digital Doc Iris,228x41x19mm
#992592	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Vision Tools Spectra Vu,
		228x57x12mm
#992593	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Imagin Hot Rod,
		228x50x17.5mm
#992594	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Carestream STV Pro I&II Kodak
		1000, 228x35x18mm
#992595	Intraoral Camera Sleeves	Digital intraoral camera sleeves, Video Dental Concepts
		Miniscope & Microscope TD-2000,228x53x29mm
#992596	Intraoral Camera Sleeves	Digital intraoral camera sleeves, DMD Telicam Digital Doc
		Aurara, 228x35x22mm
#991367	Barrier envelopes size 0	Digital x-ray sensor (size 0),inner:25x37mm
#991368	Barrier envelopes size 1	Digital x-ray sensor (size 1),inner :26.5x43mm
#991369	Barrier envelopes size 2	Digital x-ray sensor (size 2),inner :44x33mm
#991374	Sensor sleeves	Dental instrument tray, 100x43mm
#991373	Sensor sleeves	Dental instrument tray, 250x63mm
Type of Use	(Select one or both, as applicable)	
	Prescription Use (Part 21 CFR 801	Subpart D) Over-The-Counter Use (21 CFR 801 Subpart C)
	1 100011ption 000 (1 att 21 01 11 001	

#### CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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# Section 5 510(k) Summary

### [As Required by 21 CFR 807.92]

Submitter: BH Medical Products Co., Ltd.

No.90 Shenjiang Villagers' group, Zhangjiacunwei, Xilin Street,

Zhonglou District, Changzhou City, Jiangsu Province,

People's Republic of China

(Establishment registration number: 3009307523)

Contact Person: Xiaohua TAO

President

Tel: 86-519-83978705 Fax: 86-519-83978717

Email: tao@bhmedical.com.cn

US Agent:

Name: ISMILE DENTAL PRODUCTS INC.

Address: 4201 SIERRA POINT DR STE 102 Sacramento California, 95834

UNITED STATES

Contact Person: Bryan Shields

Tel: (916) 718-0795

Email: bshields@ismiledp.com

Device/Trade Name: BH Medical Dental Barrier Sleeves and Barrier Film

Common Name: Dental Barriers and Sleeves Device Panel: General and Plastic Surgery

Basis for Submission: New Device

Regulation Name: Surgical Drape and Drape Accessories

Device Classification: Class II

Regulation Number: 21 CFR 878.4370

Product Code: PEM

#### Predicate Device to BH Medical Dental Barrier Sleeves and Barrier Film:

Trade Name: Pac-Dent Barrier Sleeve, Cover-It Barrier Film

510(k) Number: K151123

Manufactured by: Pac-Dent International, Inc.

### **Device Description:**

BH Medical Dental Barrier Sleeves and Barrier Film consist of various sizes and shapes of clear polyethylene covers which are positioned on various small hand-held dental instruments such as hand pieces, curing lights, air/water syringes and similar hand instruments. In other forms, they are used to cover various devices such as dental chairs,

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dental instrument trays, x-ray heads, and others. The products are sold non-sterile, prepackaged, and are disposable, single use only.

#### **Indications for Use:**

BH Medical Dental Barrier Sleeves and Barrier Film are intended to be used as a disposable barrier for dental instruments and equipment. This device is non-sterile and intended for single patient use only.

Table for the product names and model numbers:

Item	Model	Description	Designed for	
1	#992514	B tray sleeves	Dental instrument tray, 10 1/2"x14"(360x270mm)	
2	#992515	E tray sleeves	Dental instrument tray, 11 1/2"x16"(410x290mm)	
3	#992516	A tray sleeves	Dental instrument tray, 7 1/2"x10 1/2"(270x190mm)	
4	#992446	Headrest Cover	Dental chair headrest, 11"x9 1/2"(250x280mm)	
5	#992447	Headrest Cover	Dental chair headrest, 14"x9 1/2"(250x360mm)	
6	#992513	X-ray head sleeves	X-ray head, universal, 15"x26"(660x380mm)	
7	#992481	Full chair sleeves	Dental chair, universal, 29"x80"(2020x730mm)	
8	#992479	Half chair sleeves	Half dental chair, universal, 27 1/2"x24"(680x600mm)	
9	#992486	Syringe/HVE sleeve without tape	Air/water syringe HVE universal, 2 1/2"x10"(250x60x22mm)	
10	#991372	Digital x-ray sensor sleeve	Digital x-ray sensor, universal, large, 1 5/8"x8"(210x43mm)	
11	#991371	Digital x-ray sensor sleeve	Digital x-ray sensor, universal, large, 1 3/8"x8"(210x36mm)	
12	#992492	handpiece and pen sleeves-High speed	Dental high-speed handpiece universal(200x28mm)	
13	#992493	handpiece and pen sleeves-Lower speed	Dental low-speed handpiece universal(200x38mm)	
14	#992499	light handle sleeves	light handles, universal, T-shape(154x73mm)	
15	#992508	light handle sleeves	light handles, universal, Rectanglar(150x105mm)	
16	#992495	light cure sleeves	Dental curing light, medium,20mm	
17	#992496	light cure sleeves	Dental curing light, large,25mm	
18	#992497	light cure sleeves, curved tip	Dental curing light, medium,(340x53x16mm)	
19	#992498	light cure sleeves, curved tip	Dental curing light, large,(340x84x16mm)	
20	#992582	light cure sleeves, pen style	Dental curing light, pen type,tip:40x27mm,total:250x50mm	

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21	#992583	light cure sleeves, pen	Dental curing light, pen	
		style	type,,tip:55x26mm,total:250x52mm	
22	#992584	light cure sleeves, pen	Dental curing light, pen	
		style	type,tip:40x30mm,total:250x55mm	
23		Barrier envelopes size 0	Digital x-ray sensor(Kodak 6100 size	
	#991361		0 ) ,inner :36x23mm	
24			Digital x-ray sensor(Kodak 6100 size	
	#991362	Barrier envelopes size 1	1 ) ,inner :42x26mm	
25		Barrier envelopes size 2	Digital x-ray sensor(Kodak 6100 size	
	#991363			
		•	2 ) ,inner :45x33mm	
26			Digital x-ray sensor(Kodak 6100 size	
	#991364	991364 Barrier envelopes size 3		
		1	3 ) ,inner :56x30mm	
27			Digital x-ray sensor(Kodak 6100 size	
	#991365	#991365 Barrier envelopes size 4		
			4),inner:80x60mm	
28		Tubing sleeves roll		
	#992489		Dental unit tubing, 2",(50mm)	
	,,	( 2" )		
29		Tubing sleeves roll		
	#992490	_	Dental unit tubing, 4",(100mm)	
		( 4" )		
30			Surface area that might be touched during	
	#992483	Barrier film white	procedure 4"x6",white,10cmx15cmx180m	
31			Surface area that might be touched during	
	#992482	Barrier film blue	procedure 4"x6",blue,10cmx15cmx180m	
32		Intraoral Camera	Digital intraoral camera sleeves, DMD	
	#992585	Sleeves	Telicam,228x43x13.5mm	
33		Intraoral Camera	Digital intraoral camera sleeves, Siemens	
	#992586	Sleeves	Ceracam/minicam Ultra,228x43x24mm	
34		Intraoral Camera	Digital intraoral camera sleeves, Dentsply Acucap	
	#992587	Sleeves	Concept,228x43x16.6mm	
35		Intraoral Camera	Digital intraoral camera sleeves, Camsight	
	#992588	Sleeves	OptumII,228x25x17mm	
36		Intraoral Camera	Digital intraoral camera sleeves, RF System	
	#992589	Sleeves	SS21,228x57x22mm	
37		Intraoral Camera	Digital intraoral camera sleeves, Suni Sunic-	
31	#992590	Sleeves	am,228x48x31mm	
20				
38	#992591	Intraoral Camera	Digital intraoral camera sleeves, Digital Doc	
		Sleeves	Iris,228x41x19mm	

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39	39 #002502	Intraoral Camera	Digital intraoral camera sleeves, Vision Tools	
	#992592	Sleeves	Spectra Vu,228x57x12mm	
40	#992593	Intraoral Camera	Digital intraoral camera sleeves, Imagin Hot	
	#992393	Sleeves	Rod,228x50x17.5mm	
41	#992594	Intraoral Camera	Digital intraoral camera sleeves, Carestream STV	
	#992394	Sleeves	Pro I&II Kodak 1000,228x35x18mm	
42		Intraoral Camara	Intraoral Camera	Digital intraoral camera sleeves, Video Dental
	#992595	5 Sleeves	Concepts Miniscope & Microscope TD-	
		Sieeves	2000,228x53x29mm	
43	#002506	Intraoral Camera	Digital intraoral camera sleeves, DMD Telicam	
	#992596	Sleeves	Digital Doc Aurara,228x35x22mm	
44	#991367	Barrier envelopes size 0	Digital x-ray sensor (size 0),inner :25x37mm	
45	#991368	Barrier envelopes size 1	Digital x-ray sensor (size 1),inner :26.5x43mm	
46	#991369	Barrier envelopes size 2	Digital x-ray sensor (size 2),inner :44x33mm	
47	#991374	Sensor sleeves	Dental instrument tray, 100x43mm	
48	#991373	Sensor sleeves	Dental instrument tray, 250x63mm	

# **Comparison of Technological Characteristics:**

Item	Predicate Device	Subject Device	Comment
Device	Pac-Dent Barrier Sleeve	BH Medical Dental Barrier	/
	510(K) Number: K151123	Sleeves and Barrier Film	
Indications for	Pac-Dent Barrier Sleeve are	BH Medical Dental Barrier	Same
Use	intended to be used as a barrier to	Sleeves and Barrier Film are	
	cover dental instruments. It is	intended to be used as a	
	non-sterile and is intended for	disposable barrier for dental	
	single patient use only.	instruments and equipment. This	
		device is non-sterile and intended	
		for single patient use only.	
Device	Pac-Dent Barrier Sleeves consist	BH Medical Dental Barrier	Same
Description	of various sizes and shapes of	Sleeves and Barrier Film consist	
	clear polyethylene covers which	of various sizes and shapes of	
	are positioned on various small	clear polyethylene covers which	
	hand-held dental instruments such	are positioned on various small	
	as handpieces, curing lights,	hand-held dental instruments such	
	air/water syringes and similar	as hand pieces, curing lights,	
	hand instruments. In other forms,	air/water syringes and similar	
	they are used to cover various	hand instruments. In other forms,	
	devices such as dental chairs,	they are used to cover various	

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	dental instrument trays, x-ray	devices such as dental chairs,	
	heads, and others.	dental instrument trays, x-ray	
	neads, and others.	heads, and others. The products	
		are sold non-sterile, prepackaged,	
		and are disposable, single use	
Classiciani i	DEM	only.	C
Classification	PEM	PEM	Same
Product Code	D 1 4 1 C1	D 1 4 1 C1	C.
Material	Polyethylene film	Polyethylene film	Same
Material	LLDPE(80%),LDPE(20%),Blue	LLDPE(80%),LDPE(20%),Blue	Same
Composition	pigment(Item#100B,C101B),Adh	pigment(#992482),Adhesive(#992	
	esive(Item#C101,C101B)	482,#992483)	
Specifications	Paper backing: some of model;	Paper Backing: No	Similar
and Tolerances	Film thickness:0.02-0.06mm;	Film Thickness: 0.025mm	
	Tolerance:<0.01mm;	Tolerance:<0.01mm	
Labeling	Single use device	Single use device	Same
Sterility	Non-sterile	Non-sterile	Same
Performance	Synthetic Blood Penetration test	Synthetic Blood Penetration test	Same
Properties	(ASTM F1670) -Pass	(ASTM F1670) -Pass	
	Viral Penetration test (ASTM	Viral Penetration test (ASTM	
	F1671) -Pass	F1671)-Pass	
Biocompatibili	Non-cytotoxic	Biocompatibility tests were	Same
ty	Non-sensitizing	conducted in compliance with	
	Non-irritating	ISO 10993-5 and ISO 10993-10.	
	8	Test results indicate the device is	
		non-cytotoxic, non-sensitizing	
		and non-irritating.	
Dimensions	Determined by the size and shape	Difference in dimensions is due to	Same
	of dental instruments and	the size of instruments and	
	equipment	equipment they cover	
FDA-	ASTM F1670	ASTM F1670	Same
Recognized	ASTM F1671	ASTM F1671	Sumo
Standards	ASTM D882	ASTM D882	
Standards	ASTM F1342	ASTM F1342	
	ASTM D1004	ASTM D1004	
	ISO 10993-5	ISO 10993-5	
	ISO 10993-10	ISO 10993-10	

#### **Tests:**

Performance test including resistance to penetration, tear resistance, tensile strength, puncture resistance was performed. Biocompatibility test in accordance with ISO 10993-5, ISO 10993-10 has been performed. Effectiveness of x-ray devices covered with BH Dental Barrier Sleeves was performed to demonstrate the subject device does

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not impact the function of dental x-ray devices.

The biocompatibility test result indicates that the barrier sleeves do not have the potential cytotoxicity, sensitization and irritation.

#### **Clinical Performance Data:**

NA

#### Conclusion

Based on the tests performed the subject device BH Medical Dental Barrier Sleeves and Barrier Film is as safe, as effective, and performs as well as or better than the legally marketed predicate device.

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